



April 6, 2012

Kathleen Baskin, P.E. (Kathleen.Baskin@state.ma.us)
Director of Water Policy and Planning
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, 9th Floor
Boston, MA 02114

Dear Ms. Baskin,

Public Employees for Environmental Responsibility (PEER) is writing in response to the February 3, 2012 Massachusetts Sustainable Water Management Initiative (SWMI) Framework proposal (hereinafter "[SWMI Framework](#)"). PEER is a Washington D.C.-based non-profit, non-partisan public interest organization concerned with honest and open government. Specifically, PEER serves and protects public employees working on environmental issues. PEER represents thousands of local, state and federal government employees nationwide; our New England chapter is located outside of Boston, Massachusetts. PEER has campaigns throughout Massachusetts that involve promoting and protecting clean and abundant water for both humans and wildlife.

Unfortunately, the SWMI Framework is a far cry from what is needed to protect water resources in Massachusetts. Given that Water Management Act (WMA) permits have a 20-year life, it is imperative that the Commonwealth be cautious in its approach to water withdrawal limits. Instead of allowing increasing and excessive withdrawals of groundwater in the new WMA permits, as the SWMI Framework does, the Commonwealth must limit withdrawals to sustainable levels. Our specific comments are set forth below.

Conservation should be mandatory. The conservation of water should be the Commonwealth's first method employed to achieve reasonable water use limits. Several towns have been able to significantly reduce their water use, despite growing population, through conservation methods alone. The SWMI Framework, however, merely proposes

increasing water withdrawal limits in many watersheds, despite the fact that these watersheds are currently designated as stressed. By ignoring the potential for decreasing water use through conservation, the Commonwealth is being extremely shortsighted, and is placing our aquatic environment at risk.

The proposed safe yield formula will not protect the waters of the Commonwealth.

“Safe Yield” is defined as:

the maximum dependable withdrawals that can be made continuously from a water source including ground or surface water during a period of years in which the probable driest period or period of greatest water deficiency is likely to occur; provided, however, that such dependability is relative and is a function of storage and drought probability. M.G.L. c. 21G, § 2.

In addition, in 2009 Massachusetts Department of Environmental Protection (MADEP) clarified that its “interpretation of the term safe yield under the Water Management Act includes environmental protection factors, including ecological health of river systems, as well as hydrologic factors” (see

<http://www.mass.gov/dep/water/resources/safeyield.htm>).

Despite this, the safe yields contained in the SWMI Framework increase allowed water withdrawals in all of the major basins, including many stressed water basins. These increased allocations are, in some cases, up to six times higher than current withdrawals. In addition, despite the fact that SWMI-proposed safe yield limits are derived from monthly Q90 drought flows, the method by which the SWMI Framework annualizes the monthly drought flows does not adequately restrict withdrawals during drought conditions in order to provide meaningful protection for the environment. Under the current proposal, the safe yield formula allows August withdrawals that are more than three times higher than what is needed to avoid degrading water basins to a Biological Category of 4 (35% to 65% reduction in fluvial fish relative abundance) or 5 (greater than 65% reduction in fluvial fish relative abundance). Allowing this type of degradation is nonsensical, unnecessary, and contrary to MADEP’s own interpretation.

In addition to allowing excessive safe yield limits on annual water withdrawals, the SWMI Framework would allow maximum daily withdrawals in WMA permits that are based solely on hydrologic factors and do not factor in environmental protection factors, including the ecological health of rivers. This is a particularly egregious oversight in view of the fact that maximum daily withdrawals typically occur in summer when stream flow and wetlands are most vulnerable to desiccation.

PEER also believes that the stream flow triggers that would require restrictions on non-essential water use in summer as proposed in the SWMI Framework are not sufficiently protective. By the time stream flow reaches annual 7-day low-flow, much of the damage has already been done. Cosmetic use of water for lawn irrigation should cease when stream flow drops below the median flow at the nearest or most appropriate USGS flow gauge. Furthermore, the restrictions called for in the SWMI Framework would allow limited lawn irrigation even in the most severe drought. PEER recommends that when

flow at the gauge drops below 75% of median flow, a complete ban on non-essential water use should be automatically imposed. The value of ecosystem services rendered by water in the environment far outweighs the value of green lawns, particularly considering that grass naturally goes dormant in dry conditions, and revives with autumn rains.

Approximately 20% of the state's streams suffer from severe flow reduction in the summer due to groundwater withdrawals. The goal of sustainable water management should be to use water wisely, so that our rivers, streams and wetlands have enough clean water to support healthy populations of native fish. Protecting the quality of the rivers that are currently healthy, and restoring those that are degraded, should be explicit goals of the SWMI Framework.

Private wells are not addressed. There are thousands of private wells in Massachusetts, many installed to avoid the lawn watering bans imposed by municipalities every summer. However, the proposed safe yield limits apply only to WMA-permitted water withdrawals. By ignoring the withdrawals associated with private wells in Massachusetts, the Commonwealth is relying on incomplete data to determine what safe yield is. These private water withdrawals need to be regulated and accounted for in the enforcement of protective safe yields in order to limit water use in Massachusetts to levels consistent with healthy aquatic ecosystems.

Conclusion. As proposed by the Commonwealth, "safe yield" is an oxymoron. Approximately 20% of Massachusetts' sub-basins are seriously degraded by water withdrawals, and an additional 16% are vulnerable to becoming seriously degraded if they are subjected to increased withdrawals. Despite this, the SWMI Framework proposes "safe yield" withdrawal limits several times higher than scientific data indicate as being safe for aquatic life. The SWMI Framework relies on incomplete data on water use, and allows "non-essential" water use when flows are below safe levels. This is not sustainable water management. PEER believes that the Commonwealth should retain an objective third party such as USGS to calculate new safe yield limits that truly protect aquatic resources throughout the state, and live up to DEP's Statement of Clarification of Safe Yield.

Thank you for the opportunity to comment.

Sincerely,

Kyla Bennett

Kyla Bennett, Director
New England PEER